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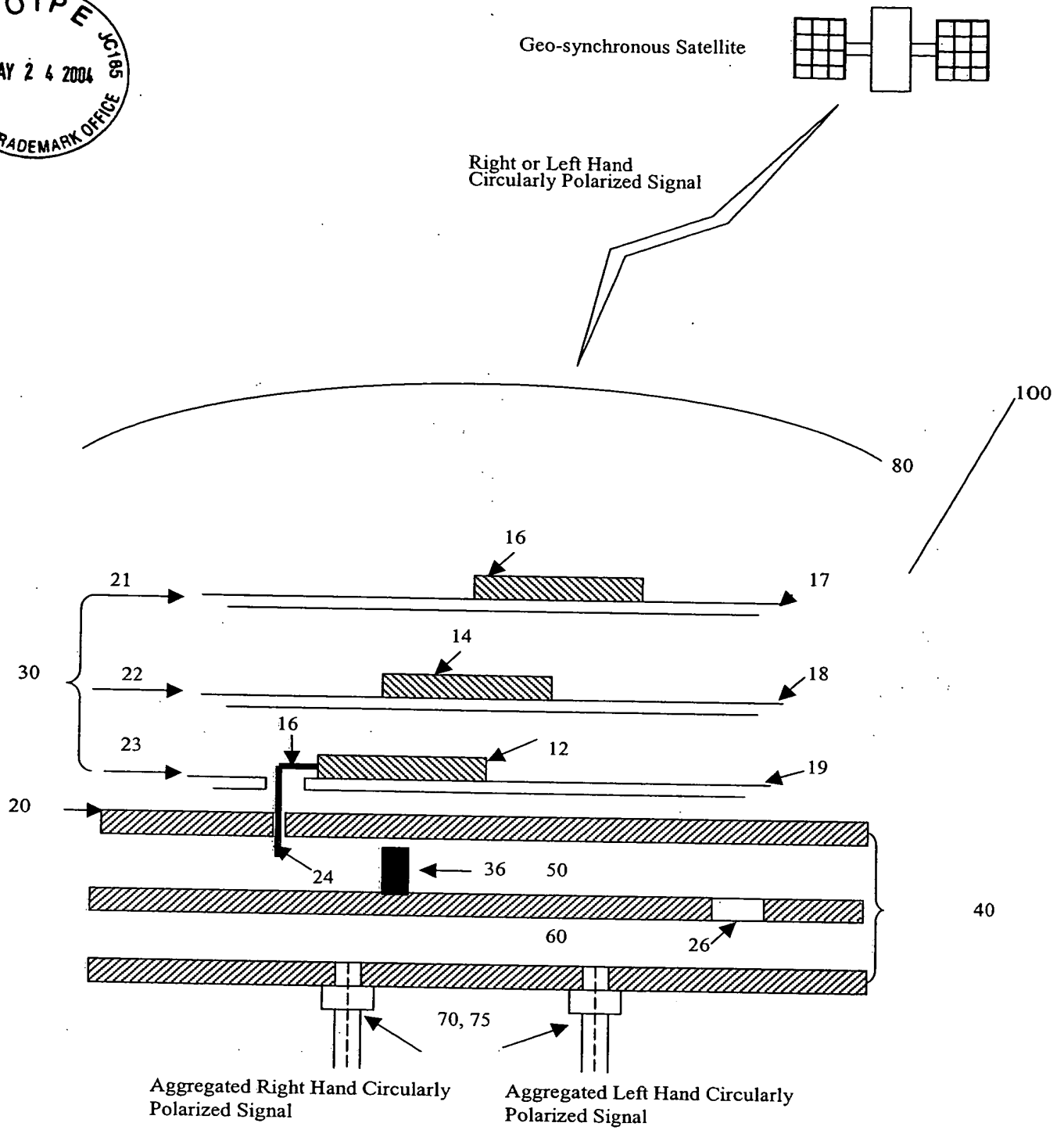


FIGURE 1

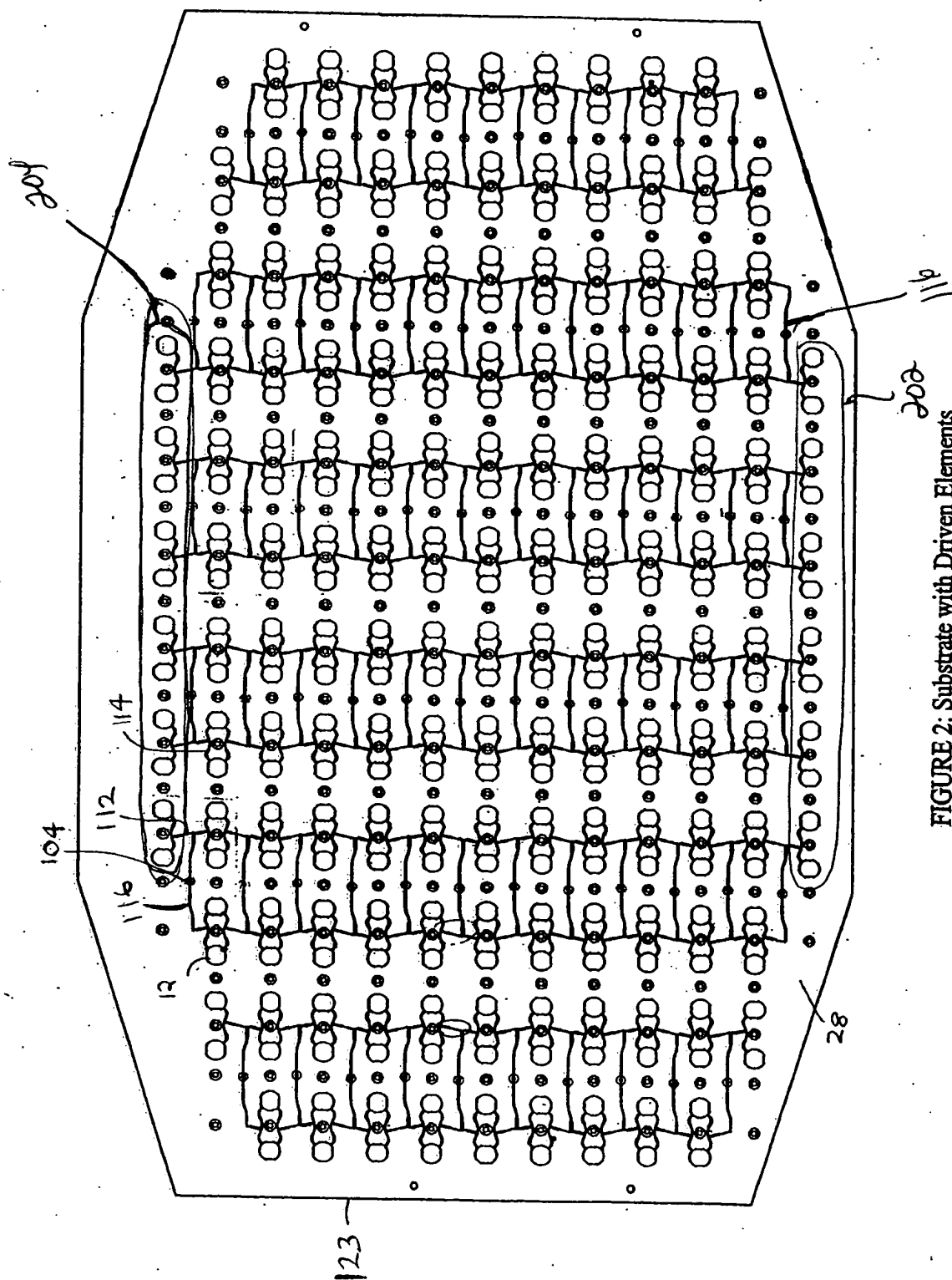


FIGURE 2: Substrate with Driven Elements

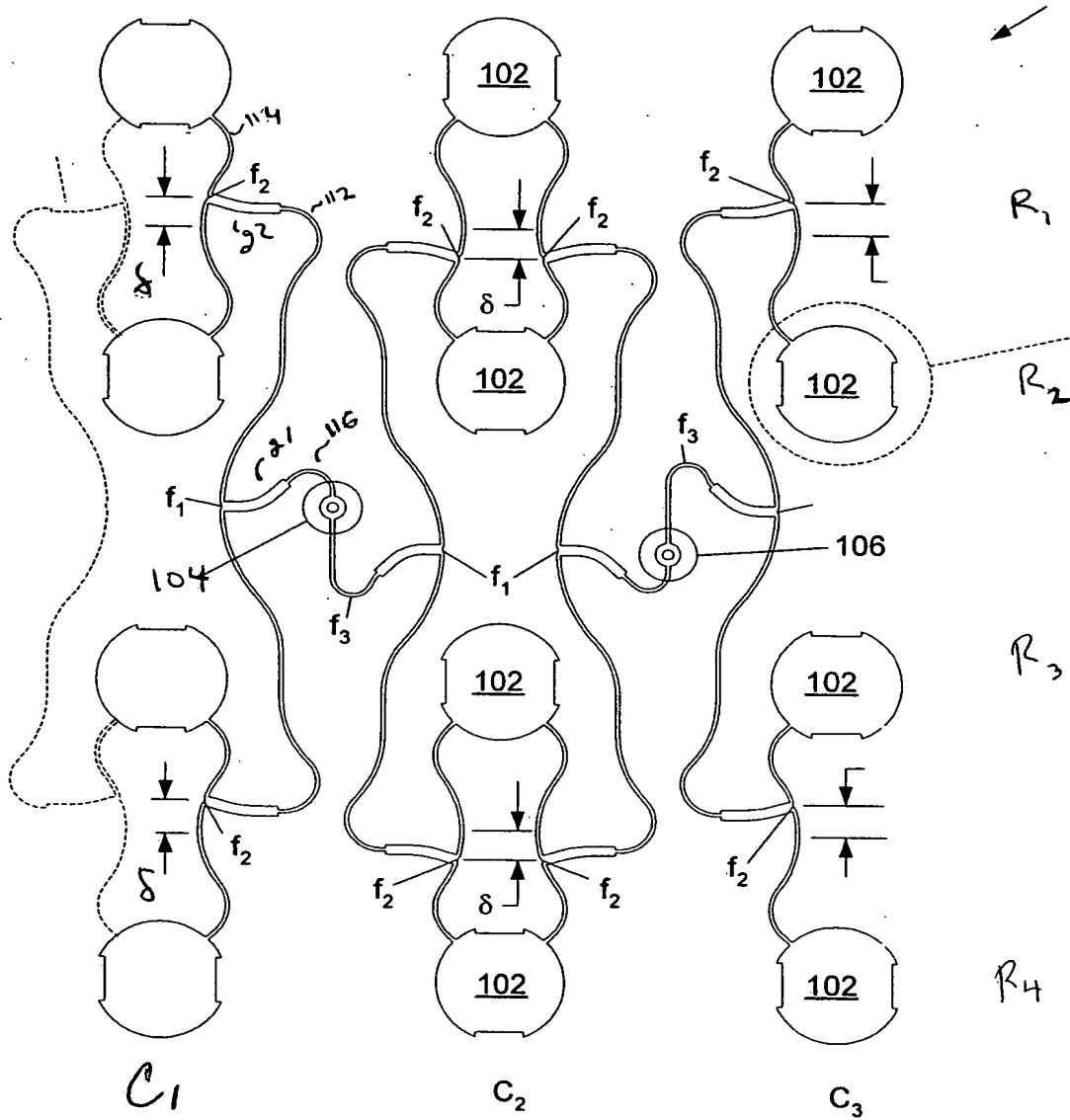


FIG. 3

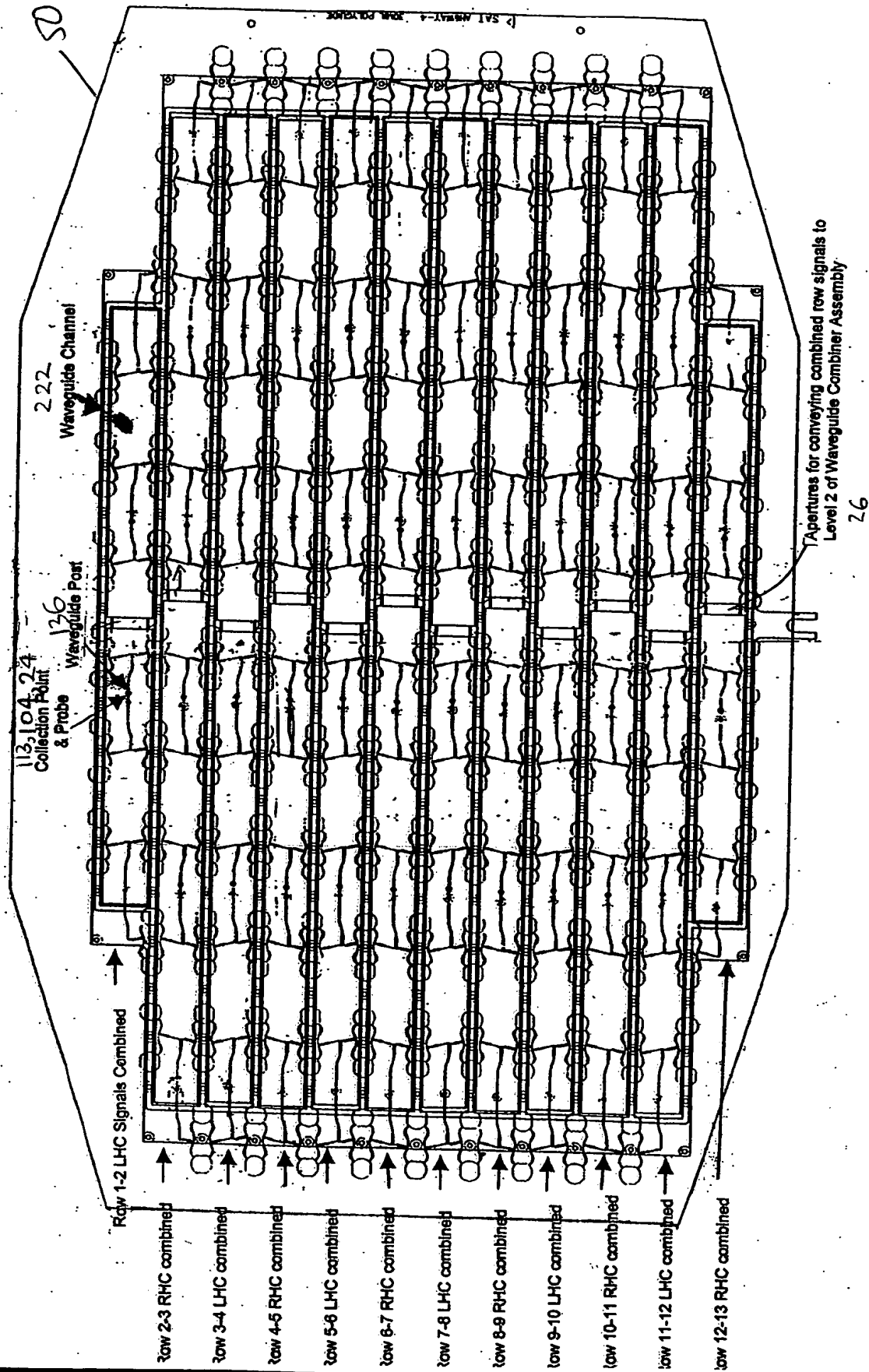
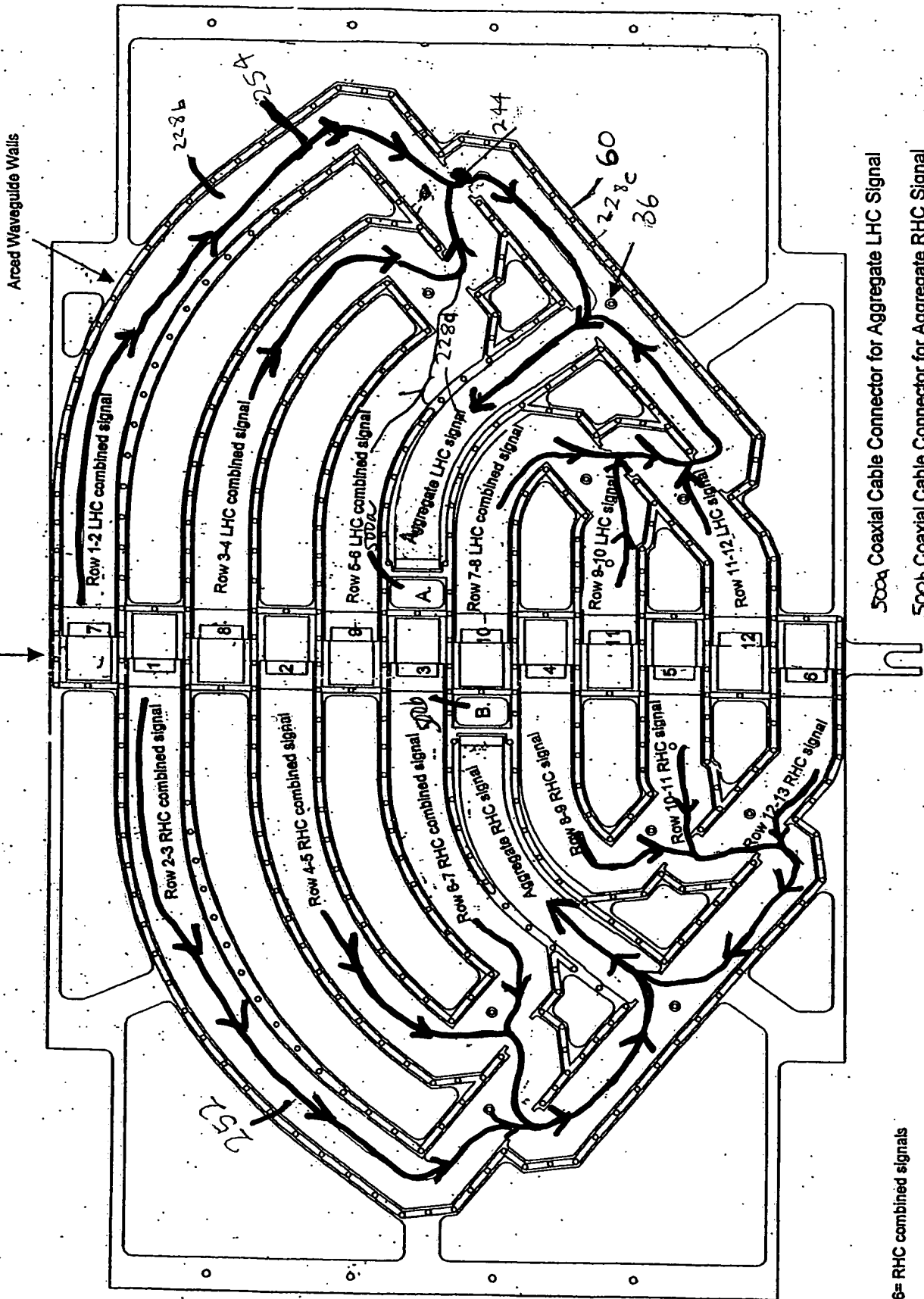


FIGURE 4: Level One of Waveguide Combiner Assembly (Showing Driven Patch Elements Above)

26
E-plane junctions (1-12)



1-6= RHC combined signals

7-12= LHC combined signals

500a Coaxial Cable Connector for Aggregate LHC Signal

500b Coaxial Cable Connector for Aggregate RHC Signal

FIGURE 6: Level Two of Waveguide Combiner Assembly

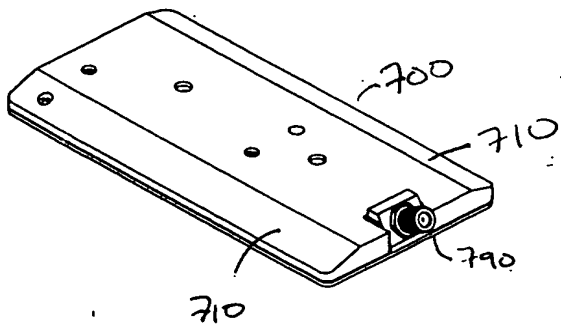


Figure 7B

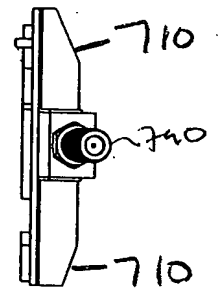


Figure 7C

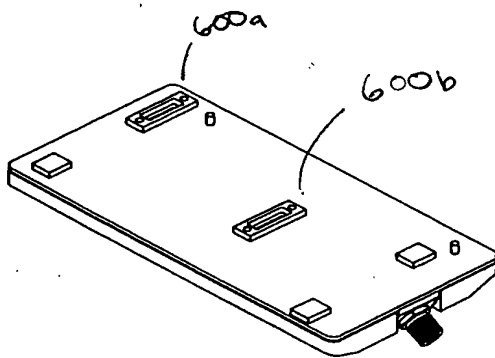


Figure 7A

FIGURE 7

STACKED LNB

FIGURE 8

FIGURE 8